



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

September 16, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: NTN Driveshaft, Inc. / 005-14340-00066

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
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MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**NTN Driveshaft, Inc.
8251 S. International Dr.
Columbus, Indiana 47201**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 005-14340-00066	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 16, 2003 Expiration Date: September 16, 2008



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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary source manufacturing constant velocity joints (CVJ) driveshaft parts and related components.

Authorized individual:	Vice President
Source Address:	8251 S. International Dr., Columbus, Indiana 47201
Mailing Address:	8251 S. International Dr., Columbus, Indiana 47201
General Source Phone Number:	(812) 342-7000
SIC Code:	3714
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit (MSOP) Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) CVJ Forging Press #1, identified as EU1, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using an oil mist eliminator with steel mesh filters and water rinsing to control particulate emissions, and exhausting to stack F3;
- (b) One (1) CVJ Forging Press #2, identified as EU2, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using a venturi scrubber with an oil mist elimination chamber to control particulate emissions, and exhausting to stack F4;
- (c) One (1) Hub Forging Press #1, identified as EU4 (F1), constructed in 1996, with a rated capacity of 1,200 steel billets per hour and 3.84 gallons of graphite lubricant per hour, using an oil mist eliminator to control particulate emissions, and exhausting to stack F1;
- (d) One (1) shaft line, identified as EU16, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour and 0.87 gallons of paint per hour, using dry filters to control particulate emissions, and exhausting to stack S4;
- (e) One (1) shaft line convection oven, identified as shaft line convection oven, constructed in 1996, with a rated capacity of 480 steel CVJ units per hour, and exhausting to stack S5;
- (f) One (1) Parkerizing line, identified as EU23, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour, 1.77 pounds per hour of Additive 1, 13.83 pounds per hour of Parco Cleaner 2053, and 57.74 pounds of Parco Lubrite per hour, and exhausting to stack S2;

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (1) One (1) Hub shot blaster, identified as EU4 (F2), constructed in 1996, with a rated capacity of 1,200 steel CVJ units per hour and 60,847 pounds of steel shot per hour, with an integral fabric filter, and exhausting to stack F2;
 - (2) One (1) My shot blaster 1, identified as EU24, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 462 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 1;
 - (3) One (1) My shot blaster 2, identified as EU25, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 377 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 2;
 - (4) One (1) heat treat line BJ1, identified as EU5, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 280 steel CVJ units per hour, 0.15 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks BJ1IH, BJ1SPB, and BJ1CO;
 - (5) One (1) heat treat line BJ2, identified as EU6, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 300 steel CVJ units per hour, 0.16 gallons of paint per hour, and 0.11 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks BJ2IH, BJ2SPB, and BJ2CO;
 - (6) One (1) heat treat line TJ2, identified as EU7, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ2IH, TJ2SPB, and TJ2CO;
 - (7) One (1) heat treat line TJ3, identified as EU8, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ3IH, TJ3SPB, and TJ3CO;
 - (8) One (1) heat treat line TJ4, identified as EU9, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 270 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ4IH, TJ4SPB, and TJ4CO;

- (9) One (1) heat treat line TJ6, identified as EU10, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ6IH, TJ6SPB, and TJ6CO;
- (10) One (1) heat treat line HT21, identified as EU11, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT21IH, HT21SPB, and HT21CO;
- (11) One (1) heat treat line HT22, identified as EU12, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks HT22IH, HT22SPB, and HT22CO;
- (12) One (1) heat treat line HT23, identified as EU13, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 180 steel CVJ units per hour, 0.10 gallons of paint per hour, and 0.06 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT23IH, HT23SPB, and HT23CO;
- (13) One (1) heat treat line HT24, identified as EU14, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT24IH, HT24SPB, and HT24CO;
- (14) One (1) heat treat line HT25, identified as EU15, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT25IH, HT25SPB, and HT25CO;
- (15) One (1) Bonderizing line, identified as EU22, constructed in 1996, with a rated capacity of 11,340 pounds of steel CVJ units per hour, 4.06 pounds per hour of Formcoat 1B, 8.88 pounds per hour of Formcoat 1A, 4.92 pounds per hour of Freiclean 10M, and 2.48 pounds of sulfuric acid per hour, using an acid scrubber to control particulate emissions, and exhausting to stack Bonderizing; and
- (16) One (1) quality assurance process, identified as QA process, with a rated capacity of 2.30 pounds of sulfuric acid per hour;

- (17) Two (2) shot blasters, identified as CVJ #1 and CVJ #2, constructed in 2003, with a maximum throughput rate of 14 steel CVJ units per hour and a maximum of 720 pounds of steel shot per hour, controlled by an integral fabric filter, and exhausting to stacks CVJSB1 and CVJSB2, respectively.
- (h) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
 - (1) One (1) degreaser, identified as Degreaser 1 - Heat Treat South (EU17), constructed in 1996, with a rated capacity of 9 gallons;
 - (2) One (1) degreaser, identified as Degreaser 2 - Heat Treat North (EU18), constructed in 1996, with a rated capacity of 9 gallons;
 - (3) One (1) degreaser, identified as Degreaser 3 - Maintenance (EU19), constructed in 1996, with a rated capacity of 26 gallons;
 - (4) One (1) degreaser, identified as Degreaser 4 - Turnings North (EU20), constructed in 1996, with a rated capacity of 26 gallons;
 - (5) One (1) degreaser, identified as Degreaser 5 - Assembly South (EU21), constructed in 1996, with a rated capacity of 26 gallons;
 - (6) One (1) degreaser, identified as Degreaser 6 - Turnings South (EU22), constructed in 1996, with a rated capacity of 26 gallons;
 - (7) One (1) degreaser, identified as Degreaser 7 - Shaft Line Maintenance (EU23), constructed in 1996, with a rated capacity of 34 gallons;
 - (8) One (1) degreaser, identified as Degreaser 8 - Spindle Room (EU24), constructed in 1996, with a rated capacity of 78 gallons;
 - (9) One (1) degreaser, identified as Degreaser 9 - Forktruck Maintenance (EU25), constructed in 1996, with a rated capacity of 34 gallons;
 - (10) One (1) degreaser, identified as Degreaser 10 - Plant Maintenance (EU26), constructed in 1996, with a rated capacity of 34 gallons;
 - (11) One (1) degreaser, identified as Degreaser 11 - Die Shop (EU27), constructed in 1996, with a rated capacity of 17 gallons; and
- (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (1) One (1) natural gas-fired boiler, identified as Bonderizing Boiler (B1), constructed in 1996, with a rated capacity of 4.2 million British thermal units per hour, and exhausting to stack B1;
 - (2) One (1) natural gas-fired boiler, identified as Parkerizing Boiler (B2), constructed in 1994, with a rated capacity of 2.1 million British thermal units per hour, and exhausting to stack B2;
 - (3) One (1) natural gas-fired boiler, identified as Administration Bldg (B3), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B3;

- (4) One (1) natural gas-fired boiler, identified as Administration Bldg (B4), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B4;
- (5) One (1) natural gas-fired boiler, identified as B5, constructed in 2000, with a rated capacity of 0.48 million British thermal units per hour, and exhausting to stack B5;
- (6) One (1) natural gas-fired boiler, identified as B6, constructed in 1989, with a rated capacity of 0.6 million British thermal units per hour, and exhausting to stack B6;
- (7) One (1) natural gas-fired boiler, identified as B7, constructed in 1989, with a rated capacity of 0.44 million British thermal units per hour, and exhausting to stack B7;
- (8) One (1) natural gas-fired boiler, identified as B8, constructed in 1989, with a rated capacity of 0.18 million British thermal units per hour, and exhausting to stack B8;
- (9) One (1) natural gas-fired boiler, identified as B9, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B9;
- (10) One (1) natural gas-fired boiler, identified as B10, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B10;
- (11) One (1) natural gas-fired boiler, identified as B11, constructed in 1989, with a rated capacity of 1.98 million British thermal units per hour, and exhausting to stack B11;
- (12) One (1) natural gas-fired boiler, identified as B12, constructed in 2002, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B12;
- (13) Seventy-two (72) natural gas-fired space heaters, identified as UH1-72, with a combined rated maximum capacity of 7.71 million British thermal units per hour;
- (14) Fifty-eight (58) natural gas-fired roof top air handlers, identified as RTAH1-58, with a combined rated maximum capacity of 24.63 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
- (15) Thirteen (13) natural gas-fired air make-up units, identified as MAU1-13, with a combined rated maximum capacity of 23.15 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
- (16) Three (3) natural gas-fired HVAC units, identified as A/C1-3, with a combined rated maximum capacity of 1.68 million British thermal units per hour; and
- (17) Twenty-two (22) natural gas-fired miscellaneous units, identified as WH, with a combined rated maximum capacity of 4.15 million British thermal units per hour.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emission or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Limitations For Manufacturing Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any manufacturing process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

Testing Requirements

C.5 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40

CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.6 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.7 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.8 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.9 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon

as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.10 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.11 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description: Forging Presses, Shaft Line, and Parkerizing Line

- (a) One (1) CVJ Forging Press #1, identified as EU1, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using an oil mist eliminator with steel mesh filters and water rinsing to control particulate emissions, and exhausting to stack F3;
- (b) One (1) CVJ Forging Press #2, identified as EU2, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using a venturi scrubber with an oil mist elimination chamber to control particulate emissions, and exhausting to stack F4;
- (c) One (1) Hub Forging Press #1, identified as EU4 (F1), constructed in 1996, with a rated capacity of 1,200 steel billets per hour and 3.84 gallons of graphite lubricant per hour, using an oil mist eliminator to control particulate emissions, and exhausting to stack F1;
- (d) One (1) shaft line, identified as EU16, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour and 0.87 gallons of paint per hour, using dry filters to control particulate emissions, and exhausting to stack S4;
- (e) One (1) shaft line convection oven, identified as shaft line convection oven, constructed in 1996, with a rated capacity of 480 steel CVJ units per hour, and exhausting to stack S5;
- (f) One (1) Parkerizing line, identified as EU23, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour, 1.77 pounds per hour of Additive 1, 13.83 pounds per hour of Parco Cleaner 2053, and 57.74 pounds of Parco Lubrite per hour, and exhausting to stack S2;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards (326 IAC 2-6.1-5(a)(1))

D.1.1 Particulate Emissions Limitations [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from these facilities shall not exceed the listed pounds per hour emission limitations when operating at the process weight rates listed below:

Unit	Process Weight Rate (lb/hr)	Process Weight Rate (ton/hr)	Particulate Emission Limit (lb/hr)
CVJ Forging Press #1 (EU1)	6885	3.44	9.38
CVJ Forging Press #2 (EU2)	6885	3.44	9.38
Hub Forging Press #1 (EU4(F1))	6300	3.15	8.84
Parkerizing Line (EU23)	4,369	2.18	6.92

These limits were calculated using the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

- (b) Particulate from the spray booth associated with the Shaft Line shall be controlled by dry filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such an observation:

- (1) Repair control device so that no overspray is visible detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visible detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.2 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere VOC from the shaft line (EU16) in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, except to the extent allowed by the regulation.

D.1.3 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f) (Miscellaneous Metal Coating Operations), all solvents sprayed from the shaft line (EU16) application equipment during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the shaft line VOC content contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the VOC content of each coating material and solvent used less water.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventative Maintenance Plan.

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description: Shot Blasters

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (1) One (1) Hub shot blaster, identified as EU4 (F2), constructed in 1996, with a rated capacity of 1,200 steel CVJ units per hour and 60,847 pounds of steel shot per hour, with an integral fabric filter, and exhausting to stack F2;
 - (2) One (1) My shot blaster 1, identified as EU24, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 462 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 1;
 - (3) One (1) My shot blaster 2, identified as EU25, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 377 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 2;
 - (17) Two (2) shot blasters, identified as CVJ #1 and CVJ #2, constructed in 2003, with a maximum throughput rate of 14 steel CVJ units per hour and a maximum of 720 pounds of steel shot per hour, controlled by an integral fabric filter, and exhausting to stacks CVJSB1 and CVJSB2, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.2.1 Particulate Control [326 IAC 6-3-2]

The integral fabric filters shall be in operation at all times that the Hub Shot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), My Shot Blaster 2 (EU25), and shot blasters CVJ #1 and CVJ #2 are in operation in order to ensure exemption from the requirements of 326 IAC 6-3-2.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description: Heat Treat Lines, Bonderizing Line, and QA Process

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (4) One (1) heat treat line BJ1, identified as EU5, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 280 steel CVJ units per hour, 0.15 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks BJ1IH, BJ1SPB, and BJ1CO;
 - (5) One (1) heat treat line BJ2, identified as EU6, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 300 steel CVJ units per hour, 0.16 gallons of paint per hour, and 0.11 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks BJ2IH, BJ2SPB, and BJ2CO;
 - (6) One (1) heat treat line TJ2, identified as EU7, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ2IH, TJ2SPB, and TJ2CO;
 - (7) One (1) heat treat line TJ3, identified as EU8, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ3IH, TJ3SPB, and TJ3CO;
 - (8) One (1) heat treat line TJ4, identified as EU9, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 270 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ4IH, TJ4SPB, and TJ4CO;
 - (9) One (1) heat treat line TJ6, identified as EU10, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ6IH, TJ6SPB, and TJ6CO;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.3

FACILITY OPERATION CONDITIONS (Continued)

Facility Description: Heat Treat Lines, Bonderizing Line, and QA Process

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (10) One (1) heat treat line HT21, identified as EU11, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT21IH, HT21SPB, and HT21CO;
 - (11) One (1) heat treat line HT22, identified as EU12, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks HT22IH, HT22SPB, and HT22CO;
 - (12) One (1) heat treat line HT23, identified as EU13, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 180 steel CVJ units per hour, 0.10 gallons of paint per hour, and 0.06 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT23IH, HT23SPB, and HT23CO;
 - (13) One (1) heat treat line HT24, identified as EU14, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT24IH, HT24SPB, and HT24CO;
 - (14) One (1) heat treat line HT25, identified as EU15, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT25IH, HT25SPB, and HT25CO;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.3 FACILITY OPERATION CONDITIONS (Continued)

Facility Description: Heat Treat Lines, Bonderizing Line, and QA Process

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (15) One (1) Bonderizing line, identified as EU22, constructed in 1996, with a rated capacity of 11,340 pounds of steel CVJ units per hour, 4.06 pounds per hour of Formcoat 1B, 8.88 pounds per hour of Formcoat 1A, 4.92 pounds per hour of Freiclean 10M, and 2.48 pounds of sulfuric acid per hour, using an acid scrubber to control particulate emissions, and exhausting to stack Bonderizing; and
 - (16) One (1) quality assurance process, identified as QA process, with a rated capacity of 2.30 pounds of sulfuric acid per hour;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Particulate Emissions Limitations [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Bonderizing Line and the induction hardening operations associated with the heat treat lines shall not exceed the listed pounds per hour emission limitations when operating at the process weight rates listed below:

Stack ID (Facility)	Process Weight Rate (lb/hr)	Process Weight Rate (ton/hr)	Particulate Emission Limit (lb/hr)
BJ1IH (EU5)	280	0.14	1.10
BJ2IH (EU6)	300	0.15	1.15
TJ2IH (EU6)	150	0.08	0.72
TJ3IH (EU6)	150	0.08	0.72
TJ4IH (EU6)	270	0.14	1.07
TJ6IH (EU6)	257	0.13	1.04
HT21IH (EU6)	225	0.11	0.95
HT22IH (EU6)	225	0.11	0.95
HT23IH (EU6)	180	0.09	0.82
HT24IH (EU6)	225	0.11	0.95
HT25IH (EU15)	257	0.13	1.04
Bonderizing Line (EU22)	11,340	5.67	13.11

These pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

- (b) Particulate from the spray booths associated with heat treat lines BJ1(EU5), BJ2(EU6), TJ4(EU9), TJ6(EU10), and HT25(EU15) shall be controlled by dry filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such an observation:

- (1) Repair control device so that no overspray is visible detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visible detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (c) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from the quality assurance process, not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-21(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

D.3.2 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere VOC from heat treat lines BJ#2 (EU6) and TJ#3 (EU8) in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator, except to the extent allowed by the regulation.

D.3.3 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f) (Miscellaneous Metal Coating Operations), all solvents sprayed from heat treat lines BJ#2 (EU6) and TJ#3 (EU8) application equipment during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

Compliance Determination Requirements

D.3.4 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths associated with heat treat line BJ1 (EU5) shall be controlled by fabric filters and the Permittee shall operate the control devices in accordance with manufacturer's specifications.
- (b) Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths associated with heat treat lines BJ2(EU5), TJ4(EU9), TJ6(EU10), and HT25(EU15) shall be controlled by water curtains and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

D.3.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with heat treat lines BJ#2 (EU6) and TJ#3 (EU8) VOC content contained in Condition D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by

preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.3.6 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records of the VOC content of each coating material and solvent used less water.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description: Degreasers

- (h) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
- (1) One (1) degreaser, identified as Degreaser 1 - Heat Treat South (EU17), constructed in 1996, with a rated capacity of 9 gallons;
 - (2) One (1) degreaser, identified as Degreaser 2 - Heat Treat North (EU18), constructed in 1996, with a rated capacity of 9 gallons;
 - (3) One (1) degreaser, identified as Degreaser 3 - Maintenance (EU19), constructed in 1996, with a rated capacity of 26 gallons;
 - (4) One (1) degreaser, identified as Degreaser 4 - Turnings North (EU20), constructed in 1996, with a rated capacity of 26 gallons;
 - (5) One (1) degreaser, identified as Degreaser 5 - Assembly South (EU21), constructed in 1996, with a rated capacity of 26 gallons;
 - (6) One (1) degreaser, identified as Degreaser 6 - Turnings South (EU22), constructed in 1996, with a rated capacity of 26 gallons;
 - (7) One (1) degreaser, identified as Degreaser 7 - Shaft Line Maintenance (EU23), constructed in 1996, with a rated capacity of 34 gallons;
 - (8) One (1) degreaser, identified as Degreaser 8 - Spindle Room (EU24), constructed in 1996, with a rated capacity of 78 gallons;
 - (9) One (1) degreaser, identified as Degreaser 9 - Forktruck Maintenance (EU25), constructed in 1996, with a rated capacity of 34 gallons;
 - (10) One (1) degreaser, identified as Degreaser 10 - Plant Maintenance (EU26), constructed in 1996, with a rated capacity of 34 gallons;
 - (11) One (1) degreaser, identified as Degreaser 11 - Die Shop (EU27), constructed in 1996, with a rated capacity of 17 gallons; and

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description: Boilers

- (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
- (1) One (1) natural gas-fired boiler, identified as Bonderizing Boiler (B1), constructed in 1996, with a rated capacity of 4.2 million British thermal units per hour, and exhausting to stack B1;
 - (2) One (1) natural gas-fired boiler, identified as Parkerizing Boiler (B2), constructed in 1994, with a rated capacity of 2.1 million British thermal units per hour, and exhausting to stack B2;
 - (3) One (1) natural gas-fired boiler, identified as Administration Bldg (B3), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B3;
 - (4) One (1) natural gas-fired boiler, identified as Administration Bldg (B4), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B4;
 - (5) One (1) natural gas-fired boiler, identified as B5, constructed in 2000, with a rated capacity of 0.48 million British thermal units per hour, and exhausting to stack B5;
 - (6) One (1) natural gas-fired boiler, identified as B6, constructed in 1989, with a rated capacity of 0.6 million British thermal units per hour, and exhausting to stack B6;
 - (7) One (1) natural gas-fired boiler, identified as B7, constructed in 1989, with a rated capacity of 0.44 million British thermal units per hour, and exhausting to stack B7;
 - (8) One (1) natural gas-fired boiler, identified as B8, constructed in 1989, with a rated capacity of 0.18 million British thermal units per hour, and exhausting to stack B8;
 - (9) One (1) natural gas-fired boiler, identified as B9, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B9;
 - (10) One (1) natural gas-fired boiler, identified as B10, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B10;
 - (11) One (1) natural gas-fired boiler, identified as B11, constructed in 1989, with a rated capacity of 1.98 million British thermal units per hour, and exhausting to stack B11;
 - (12) One (1) natural gas-fired boiler, identified as B12, constructed in 2002, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B12;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.5.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the following units shall be limited as follows:

Boiler	Emission Limitation (lb/MMBtu)
B6	0.6
B7	0.6
B8	0.6
B9	0.6
B10	0.6
B11	0.6
B2	0.6
B3	0.6
B4	0.6
B1	0.57
B5	0.56
B12	0.56

SECTION D.6

FACILITY OPERATION CONDITIONS

Facility Description: Combustion Sources

- (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (13) Seventy-two (72) natural gas-fired space heaters, identified as UH1-72, with a combined rated maximum capacity of 7.71 million British thermal units per hour;
 - (14) Fifty-eight (58) natural gas-fired roof top air handlers, identified as RTAH1-58, with a combined rated maximum capacity of 24.63 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
 - (15) Thirteen (13) natural gas-fired air make-up units, identified as MAU1-13, with a combined rated maximum capacity of 23.15 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
 - (16) Three (3) natural gas-fired HVAC units, identified as A/C1-3, with a combined rated maximum capacity of 1.68 million British thermal units per hour; and
 - (17) Twenty-two (22) natural gas-fired miscellaneous units, identified as WH, with a combined rated maximum capacity of 4.15 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

There are no specific regulations applicable to these units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under
326 IAC 2-6.1-5(a)(5).

Company Name:	NTN Driveshaft, Inc.
Address:	8251 S. International Dr.
City:	Columbus, Indiana 47201
Phone #:	(812) 342-7000
MSOP #:	005-14340-00066

NTN Driveshaft, Inc. is ☒ still in operation.
 ☐ no longer in operation.

NTN Driveshaft, Inc. is ☒ in compliance with the requirements of MSOP 005-14340-00066
 ☐ not in compliance with the requirements of MSOP 005-14340-00066

Authorized Individual (typed):
Title:
Signature:
Date:

MALFUNCTION REPORT
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? _____, 25 TONS/YEAR SULFUR DIOXIDE ? _____, 25 TONS/YEAR NITROGEN OXIDES ? _____, 25 TONS/YEAR VOC ? _____, 25 TONS/YEAR HYDROGEN SULFIDE ? _____, 25 TONS/YEAR TOTAL REDUCED SULFUR ? _____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? _____, 25 TONS/YEAR FLUORIDES ? _____, 100 TONS/YEAR CARBON MONOXIDE ? _____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? _____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? _____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? _____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? _____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. (_____) _____

LOCATION: (CITY AND COUNTY) _____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____

INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____ / ____ / 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____ / ____ / 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Minor Source Operating Permit

Source Background and Description

Source Name: NTN Driveshaft, Inc.
Source Location: 8251 S. International Dr., Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3714
Operation Permit No.: 005-14340-00066
Permit Reviewer: ERG/YC

On April 10, 2003, the Office of Air Quality (OAQ) had a notice published in the The Republic, Columbus, Indiana, stating that NTN Driveshaft, Inc. had applied for a Minor Source Operating Permit (MSOP) to operate a drive shaft parts manufacturing facility with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 1, 2003 and June 12, 2003, NTN Driveshaft, Inc. submitted comments on the proposed MSOP. After further consideration, the source has withdrawn their comments concerning the particulate emission limits in Conditions D.1.1(a) and D.3.1(a) that were included in the comment letter received on May 1, 2003. The summary of the comments is as follows:

Comment 1:

The source stated that the language in Condition B.6 - Annual Notification requires more than what rule 326 IAC 2-6.1-5(a)(5) regulates. The source stated that rule 326 IAC 2-6.1-5(a)(5) does not require the following:

- (a) Noncompliance with any condition shall be specifically identified.
- (b) The narrative descriptions of how the source will achieve compliance.
- (c) Notice of any noncompliance that may have occurred, but is no longer occurring at the time of the notice.
- (d) The annual compliance notification form is more like a certification, instead of a notification.

The source requested to revise Condition B.6 as follows to reflect the actual regulatory requirements and to revise the same changes to the annual notification form.

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

-
- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

- (b) ~~Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved.~~ The notification must be signed by an authorized individual.
- (c) ~~The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:~~
- Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

Response to Comment 1:

IDEM disagrees that the annual notification should be a “snapshot” of the compliance status of the source. The annual notification was included as a requirement for minor source operating permits to provide some information concerning the compliance history of the source. This requirement is patterned after the annual compliance certification requirements for sources operating under Part 70 or federally enforceable state operating (FESOP) permits. IDEM recognized that the notification requirements did not need to be as stringent as the annual compliance certifications, but the purpose was to be the same. While the language under 326 IAC 2-6.1-5(a)(5) may give the impression of not requiring a “look back”, the language under 326 IAC 2-6.1-5(a)(2) requires that the permit include reporting requirements “that assure reasonable information is provided to evaluate compliance”. Therefore IDEM will include the citation 326 IAC 2-6.1-5(a)(2) as well as 326 IAC 2-6.1-5(a)(5) in the permit condition authority.

IDEM agrees that the annual notification does not require a certification by the authorized individual and will revise the annual notification form accordingly. Therefore, Condition B.6 and the attached annual notification form have been revised as follows:

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) ~~Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved.~~ The notification must be signed by an authorized individual.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

MINOR SOURCE OPERATING PERMIT

ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	NTN Driveshaft, Inc.
Address:	8251 S. International Dr.
City:	Columbus, Indiana 47201
Phone #:	(812) 342-7000
MSOP #:	005-14340-00066

I hereby certify that NTN Driveshaft, Inc. is ☒ still in operation.
☐ no longer in operation.

I hereby certify that NTN Driveshaft, Inc. is ☒ in compliance with the requirements of MSOP 005-14340-00066
☐ not in compliance with the requirements of MSOP 005-14340-00066

Authorized Individual (typed):
Title:
Signature:
Date:

~~If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.~~

Noncompliance:

Comment 2:

The source stated that Condition B.7 - Preventative Maintenance Plan (PMP) requires more than the regulatory requirements in 326 IAC 1-6-3(a). Rule 326 IAC 1-6-3(a) only requires the source to prepare and maintain a PMP, and does not state that failure to implement the PMP is a violation. The source requested to revise Condition B.7 as follows to reflect the actual regulatory requirements.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall **prepare and maintain and implement** Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- ~~(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.~~
- (eb) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- ~~(dc)~~ Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

Response to Comment 2:

Condition B.7 does not state that failure to implement the PMP would be a violation. In order to prevent and not cause or contribute to a violation, IDEM, OAQ believes it is necessary to implement the PMP. Therefore, the implementation of PMPs are mandatory for each source.

Upon further review, IDEM, OAQ has determined to revise Condition B.7(b) to clarify that required record keeping needs to be implemented as well as the rest of the plan to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit. Also, Condition B.7(c) has been revised to clarify that OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance is the primary contributor to an exceedance of any limitation on emissions or potential to emit.

The requirements to keep records of preventive maintenance in Condition B.7(d) has been moved to D Section. Because the general record keeping requirements (ie retained for 5 years) are included in Condition C.11, it is not necessary to include them in this condition or in the D condition. Therefore, Conditions B.7 and D.1.6 have been revised as follows to reflect the changes described above:

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs, **including any required record keeping**, as necessary to ensure that failure to implement a PMP does not cause or contribute to a ~~violation~~ **exceedance** of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or ~~contributes to any violation~~ **is the primary contributor to an exceedance of any limitation on emission or potential to emit**. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- ~~(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.~~

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the VOC content of each coating material and solvent used less water.
- (b) **To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventative Maintenance Plan.**
- ~~(b)~~ (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 3:

The source stated that Condition C.1 - Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour, should be revised to indicate that 326 IAC 6-3-2 applies to "manufacturing" processes. In addition, since the most updated 326 IAC 6-3-2 has not be incorporated into the federal State Implementation Plan (SIP) yet, this condition is not federally enforceable.

Response to Comment 3:

Although the current rule is not incorporated into the SIP and is currently not federally enforceable, the previous version is incorporated into the SIP and is still applicable to sources. Once the current rule is in the SIP, it will be federally enforceable.

IDEM, OAQ has made the following change to Condition C.1 to reflect the proper rule description:

- C.1 Particulate ~~Emission~~ Limitations For **Manufacturing** Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]
Pursuant to 326 IAC 6-3-2(e)(2), ~~the allowable~~ particulate emissions ~~rate~~ from any **manufacturing** process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Comment 4:

The source stated that Condition C.5 - Asbestos Abatement Projects is not necessary in the permit because asbestos was no longer available at the time when the source was constructed in 1989. The source also stated that removing this condition would more closely follow the general principle that minor source operating permits are not meant to be all-inclusive documents, unlike Title V permits or FESOPs.

Response to Comment 4:

The requirements of Condition C.5 are currently not applicable to the source. Therefore, IDEM has removed Condition C.5 from the revised permit. However, pursuant to 326 IAC 14-10-1(a) (Emission Standards for Asbestos; Demolition and Renovation Operations), the source shall comply with the notification requirements in 326 IAC 14-10-3 when a facility is being demonished, even if no asbestos is present.

~~C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]~~

~~(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos-containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.~~

~~(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:~~

~~(1) When the amount of affected asbestos-containing material increases or decreases by at least twenty percent (20%); or~~

~~(2) If there is a change in the following:~~

~~(A) Asbestos removal or demolition start date;~~

~~(B) Removal or demolition contractor; or~~

~~(C) Waste disposal site.~~

~~(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).~~

~~(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).~~

~~All required notifications shall be submitted to:~~

~~Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015~~

~~The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).~~

- ~~(e) Procedures for Asbestos Emission Control~~
~~The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.~~
- ~~(f) Indiana Accredited Asbestos Inspector~~
~~The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.~~

Comment 5:

The source requested that all the changes be made to the Technical Support Document (TSD) commensurate with the changes requested to the permit.

Response to Comment 5:

OAQ prefers that the TSD reflects the permit that was on public notice, and changes to the TSD that occur after the public notice will be documented in this Addendum. Therefore, no change has been made as a result of this comment.

Upon further review, the OAQ has decided to make the following revisions to the permit. The Table Of Contents has been modified, if applicable, to reflect these changes.

1. The rule citation for condition D.1.4 shall be 326 IAC 1-6-3. Therefore, OAQ has made the following correction:

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-32-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

2. In the letter received on June 9, 2003, NTN Driveshaft, Inc. requested to add the following insignificant units to their existing plant:
 - (a) Two (2) shot blasters, identified as CVJ #1 and CVJ #2, constructed in 2003, with a maximum throughput rate of 14 steel CVJ units per hour and a maximum of 720 pounds of steel shot per hour, controlled by an integral fabric filter, and exhausting to stacks CVJSB1 and CVJSB2, respectively.

IDEM, OAQ has determined that the cartridge filters are integral parts to these shot blasters in the technical support document for this MSOP. Therefore, the potential to emit from these units is the potential to emit from these units after filter control. These fabric filters shall operate at all times when shot blasters CVJ #1 and CVJ #2 are in operation.

The potential to emit PM/PM10 from each of the new shot blasters is 0.9 tons/yr. Therefore, the construction of these units are exempt from the permitting requirements, pursuant to 326 IAC 2-1.1-3(e)(1). Conditions A.2, D.2, and D.2.1 have been revised as follows to reflect the operation of these units:

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (17) **Two (2) shot blasters, identified as CVJ #1 and CVJ #2, constructed in 2003, with a maximum throughput rate of 14 steel CVJ units per hour and a maximum of 720 pounds of steel shot per hour, controlled by an integral fabric filter, and exhausting to stacks CVJSB1 and CVJSB2, respectively.**

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description: Shot Blasters

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
 - (1) One (1) Hub shot blaster, identified as EU4 (F2), constructed in 1996, with a rated capacity of 1,200 steel CVJ units per hour and 60,847 pounds of steel shot per hour, with an integral fabric filter, and exhausting to stack F2;
 - (2) One (1) My shot blaster 1, identified as EU24, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 462 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 1;
 - (3) One (1) My shot blaster 2, identified as EU25, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 377 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 2;
 - (17) **Two (2) shot blasters, identified as CVJ #1 and CVJ #2, constructed in 2003, with a maximum throughput rate of 14 steel CVJ units per hour and a maximum of 720 pounds of steel shot per hour, controlled by an integral fabric filter, and exhausting to stacks CVJSB1 and CVJSB2, respectively.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 Particulate Control [326 IAC 6-3-2]

The integral fabric filters shall be in operation at all times that the Hub Shot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25), **and shot blasters CVJ #1 and CVJ #2** are in operation in order to ensure exemption from the requirements of 326 IAC 6-3-2.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: NTN Driveshaft, Inc.
Source Location: 8251 S. International Dr., Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3714
Operation Permit No.: 005-14340-00066
Permit Reviewer: ERG/KC

The Office of Air Quality (OAQ) has reviewed an application from NTN Driveshaft, Inc. relating to the operation of a source manufacturing constant velocity joints (CVJ) driveshaft parts and related components.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) CVJ Forging Press #1, identified as EU1, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using an oil mist eliminator with steel mesh filters and water rinsing to control particulate emissions, and exhausting to stack F3;
- (b) One (1) CVJ Forging Press #2, identified as EU2, constructed in 1996, with a rated capacity of 810 steel billets per hour and 2.27 gallons of graphite lubricant per hour, using a venturi scrubber with an oil mist elimination chamber to control particulate emissions, and exhausting to stack F4;
- (c) One (1) Hub Forging Press #1, identified as EU4 (F1), constructed in 1996, with a rated capacity of 1,200 steel billets per hour and 3.84 gallons of graphite lubricant per hour, using an oil mist eliminator to control particulate emissions, and exhausting to stack F1;
- (d) One (1) shaft line, identified as EU16, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour and 0.87 gallons of paint per hour, using dry filters to control particulate emissions, and exhausting to stack S4;
- (e) One (1) shaft line convection oven, identified as shaft line convection oven, constructed in 1996, with a rated capacity of 480 steel CVJ units per hour, and exhausting to stack S5;
- (f) One (1) Parkerizing line, identified as EU23, constructed in 1996, with a rated capacity of 514 steel CVJ units per hour, 1.77 pounds per hour of Additive 1, 13.83 pounds per hour of Parco Cleaner 2053, and 57.74 pounds of Parco Lubrite per hour, and exhausting to stack S2;

- (g) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (1) One (1) Hub shot blaster, identified as EU4 (F2), constructed in 1996, with a rated capacity of 1,200 steel CVJ units per hour and 60,847 pounds of steel shot per hour, with an integral fabric filter, and exhausting to stack F2;
 - (2) One (1) My shot blaster 1, identified as EU24, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 462 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 1;
 - (3) One (1) My shot blaster 2, identified as EU25, constructed in 1996, with a rated capacity of 120 steel CVJ units per hour and 377 pounds of sand shot per hour, with an integral fabric filter, and exhausting to stack My 2;
 - (4) One (1) heat treat line BJ1, identified as EU5, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 280 steel CVJ units per hour, 0.15 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks BJ1IH, BJ1SPB, and BJ1CO;
 - (5) One (1) heat treat line BJ2, identified as EU6, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 300 steel CVJ units per hour, 0.16 gallons of paint per hour, and 0.11 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks BJ2IH, BJ2SPB, and BJ2CO;
 - (6) One (1) heat treat line TJ2, identified as EU7, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, all with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ2IH, TJ2SPB, and TJ2CO;
 - (7) One (1) heat treat line TJ3, identified as EU8, constructed in 1996, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 150 steel CVJ units per hour, 0.08 gallons of paint per hour, and 0.05 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks TJ3IH, TJ3SPB, and TJ3CO;
 - (8) One (1) heat treat line TJ4, identified as EU9, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 270 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.10 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ4IH, TJ4SPB, and TJ4CO;

- (9) One (1) heat treat line TJ6, identified as EU10, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks TJ6IH, TJ6SPB, and TJ6CO;
- (10) One (1) heat treat line HT21, identified as EU11, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT21IH, HT21SPB, and HT21CO;
- (11) One (1) heat treat line HT22, identified as EU12, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and dry filters to control particulate emissions from the spray paint booth, and exhausting to stacks HT22IH, HT22SPB, and HT22CO;
- (12) One (1) heat treat line HT23, identified as EU13, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 180 steel CVJ units per hour, 0.10 gallons of paint per hour, and 0.06 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT23IH, HT23SPB, and HT23CO;
- (13) One (1) heat treat line HT24, identified as EU14, constructed in 1997, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 225 steel CVJ units per hour, 0.12 gallons of paint per hour, and 0.08 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT24IH, HT24SPB, and HT24CO;
- (14) One (1) heat treat line HT25, identified as EU15, constructed in 2002, consisting of induction hardening, a spray paint booth, and a convection oven, with a rated capacity of 257 steel CVJ units per hour, 0.14 gallons of paint per hour, and 0.09 gallons of quenchant per hour, using an oil mist collector to control particulate emissions from induction hardening and a water curtain to control particulate emissions from the spray paint booth, and exhausting to stacks HT25IH, HT25SPB, and HT25CO;
- (15) One (1) Bonderizing line, identified as EU22, constructed in 1996, with a rated capacity of 11,340 pounds of steel CVJ units per hour, 4.06 pounds per hour of Formcoat 1B, 8.88 pounds per hour of Formcoat 1A, 4.92 pounds per hour of Freiclean 10M, and 2.48 pounds of sulfuric acid per hour, using an acid scrubber to control particulate emissions, and exhausting to stack Bonderizing; and
- (16) One (1) quality assurance process, identified as QA process, with a rated capacity of 2.30 pounds of sulfuric acid per hour;

- (h) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
 - (1) One (1) degreaser, identified as Degreaser 1 - Heat Treat South (EU17), constructed in 1996, with a rated capacity of 9 gallons;
 - (2) One (1) degreaser, identified as Degreaser 2 - Heat Treat North (EU18), constructed in 1996, with a rated capacity of 9 gallons;
 - (3) One (1) degreaser, identified as Degreaser 3 - Maintenance (EU19), constructed in 1996, with a rated capacity of 26 gallons;
 - (4) One (1) degreaser, identified as Degreaser 4 - Turnings North (EU20), constructed in 1996, with a rated capacity of 26 gallons;
 - (5) One (1) degreaser, identified as Degreaser 5 - Assembly South (EU21), constructed in 1996, with a rated capacity of 26 gallons;
 - (6) One (1) degreaser, identified as Degreaser 6 - Turnings South (EU22), constructed in 1996, with a rated capacity of 26 gallons;
 - (7) One (1) degreaser, identified as Degreaser 7 - Shaft Line Maintenance (EU23), constructed in 1996, with a rated capacity of 34 gallons;
 - (8) One (1) degreaser, identified as Degreaser 8 - Spindle Room (EU24), constructed in 1996, with a rated capacity of 78 gallons;
 - (9) One (1) degreaser, identified as Degreaser 9 - Forktruck Maintenance (EU25), constructed in 1996, with a rated capacity of 34 gallons;
 - (10) One (1) degreaser, identified as Degreaser 10 - Plant Maintenance (EU26), constructed in 1996, with a rated capacity of 34 gallons;
 - (11) One (1) degreaser, identified as Degreaser 11 - Die Shop (EU27), constructed in 1996, with a rated capacity of 17 gallons; and
- (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (1) One (1) natural gas-fired boiler, identified as Bonderizing Boiler (B1), constructed in 1996, with a rated capacity of 4.2 million British thermal units per hour, and exhausting to stack B1;
 - (2) One (1) natural gas-fired boiler, identified as Parkerizing Boiler (B2), constructed in 1994, with a rated capacity of 2.1 million British thermal units per hour, and exhausting to stack B2;
 - (3) One (1) natural gas-fired boiler, identified as Administration Bldg (B3), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B3;
 - (4) One (1) natural gas-fired boiler, identified as Administration Bldg (B4), constructed in 1994, with a rated capacity of 1.2 million British thermal units per hour, and exhausting to stack B4;

- (5) One (1) natural gas-fired boiler, identified as B5, constructed in 2000, with a rated capacity of 0.48 million British thermal units per hour, and exhausting to stack B5;
- (6) One (1) natural gas-fired boiler, identified as B6, constructed in 1989, with a rated capacity of 0.6 million British thermal units per hour, and exhausting to stack B6;
- (7) One (1) natural gas-fired boiler, identified as B7, constructed in 1989, with a rated capacity of 0.44 million British thermal units per hour, and exhausting to stack B7;
- (8) One (1) natural gas-fired boiler, identified as B8, constructed in 1989, with a rated capacity of 0.18 million British thermal units per hour, and exhausting to stack B8;
- (9) One (1) natural gas-fired boiler, identified as B9, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B9;
- (10) One (1) natural gas-fired boiler, identified as B10, constructed in 1989, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B10;
- (11) One (1) natural gas-fired boiler, identified as B11, constructed in 1989, with a rated capacity of 1.98 million British thermal units per hour, and exhausting to stack B11;
- (12) One (1) natural gas-fired boiler, identified as B12, constructed in 2002, with a rated capacity of 0.2 million British thermal units per hour, and exhausting to stack B12;
- (13) Seventy-two (72) natural gas-fired space heaters, identified as UH1-72, with a combined rated maximum capacity of 7.71 million British thermal units per hour;
- (14) Fifty-eight (58) natural gas-fired roof top air handlers, identified as RTAH1-58, with a combined rated maximum capacity of 24.63 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
- (15) Thirteen (13) natural gas-fired air make-up units, identified as MAU1-13, with a combined rated maximum capacity of 23.15 million British thermal units per hour (note: each unit has a maximum capacity less than 10 million British thermal units per hour);
- (16) Three (3) natural gas-fired HVAC units, identified as A/C1-3, with a combined rated maximum capacity of 1.68 million British thermal units per hour; and
- (17) Twenty-two (22) natural gas-fired miscellaneous units, identified as WH, with a combined rated maximum capacity of 4.15 million British thermal units per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

The source has constructed under or has been operating under the following:

- (a) E005-14802-00066, issued February 8, 2002;
- (b) E005-11802-00066, issued May 1, 2000;
- (c) CP005-8803-00066, issued October 13, 1997;
- (d) CP005-6484-00066, issued January 16, 1997;
- (e) AA005-7177-00066, issued December 3, 1996;
- (f) CP005-4612-00006, issued September 12, 1996; and
- (g) Registration, issued September 1, 1989.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not included into this minor source operating permit:

All construction conditions from all previously issued permits.

Reason Not Incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not been constructed would need new pre-construction approval before beginning construction.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the fabric filters be considered as an integral part of the Hub Shot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25) processes:

- (a) The purpose of the shotblast machines is to clean the parts for further machining, painting, or other processing. In all cases, a part free from fines is essential to quality in the process. The baghouse system evacuates the fines (from spent shot and scale removed from the parts) which would otherwise decrease the efficiency of the system by reducing the mass of the shot being thrown at the parts and by interfering with the contact of clean shot with the part surface. Operation of the shotblast system without the baghouse would immediately result in parts that do not meet the necessary standards for use in the subsequent operation.
- (b) The baghouses are necessary to the recycling of the shotblast media. The systems are designed for such recycling to take place and could not be operated otherwise. The recycling is performed because of the large rate of shot through the system. If shot were not recycled, the system would run out of shot in less than one minute. Shot would need to be put into the system almost continuously if there were no recycle. This would result in the use of approximately 100,000 tons per year of shot. NTN currently uses about one drum of shot every 2-3 months. The sand shot costs \$375/ton to replace. Therefore, the reuse of shot results in significant cost savings.

- (c) The baghouse protects the fan that creates the draft from the working surface. Without the baghouse filter, particulate would directly impact the fan blades and degrade them to the point where the draft required to evacuate the fines generated by the shot blast operation and damaged shot would be eliminated. If the damaged shot is not removed, it reduces the efficiency of the blast unit. This would result in parts that would not be accepted by the customer.
- (d) The baghouse systems are interlocked with the shotblasting operation. The system is programmed to require that the baghouse system be activated for the shotblasting operation to start. Further, the system would have to be completely re-wired and re-programmed to override the interlock.
- (e) Baghouses have been included in shot blaster design long before environmental regulations. A Wheelabrator Co. catalog dating back to 1940 has been found showing shot blasters with baghouses. Use of baghouses decades before the Clean Air Act was in place demonstrates that the primary purposes of the baghouses were process considerations and not air pollution control. This also demonstrates that baghouses would be used even if no air pollution control laws applied.
- (f) Daily, monthly, semiannual, and annual inspections are performed on the baghouses. The daily inspections include inspecting the baghouse doors, seals, and discharge tubes from the hopper to the collection drums located below the dust collector, checking the fan, amp reading, and pressure drop prior to the cleaning cycle and after the cleaning cycle. NTN enters the dust collector on a monthly basis to inspect the condition of the bags. The accuracy of the manometer used to monitor the pressure drop is also checked. On a semiannual basis, the following items are inspected: the collector housing, cleaning system, filters, material discharge system, fan, and airflow rates. Annually, old filters are replaced with new ones.

IDEM, OAQ has evaluated the justifications and agreed that, based on the combination of the justifications listed above, the fabric filters will be considered as an integral part of the Hub Shot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25). Therefore, the permitting level will be determined using the potential to emit after the fabric filters. Operating conditions in the proposed permit will specify that the fabric filters shall operate at all times when Hub Shot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25) are in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temp. (°F)
F1	Hub Forging Press (EU4(F1))	35	3	24,485	90
F2	Hub Shot Blaster (EU4(F2))	28	NA	NA	NA
F3	CVJ Forging Press #1 (EU1)	35	34"x60"	8,582	90
F4	CVJ Forging Press #2 (EU2)	35	34"x60"	8,582	90
BJ1IH	BJ1 Induction Hardening (EU5)	30	2.17	6,000	75
BJ1SPB	BJ1 Spray Paint Booth (EU5)	30	2	3,600	75
BJ1CO	BJ1 Convection Oven (EU5)	30	0.833	270	338
BJ2IH	BJ2 Induction Hardening (EU6)	30	2.17	6,000	75
BJ2SPB	BJ2 Spray Paint Booth (EU6)	30	2	3,600	75
BJ2CO	BJ2 Convection Oven (EU6)	30	0.833	270	338
TJ2IH	TJ2 Induction Hardening (EU7)	30	2.17	6,000	75

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temp. (°F)
TJ2SPB	TJ2 Spray Paint Booth (EU7)	30	2	3,600	75
TJ2CO	TJ2 Convection Oven (EU7)	30	0.833	270	338
TJ3IH	TJ3 Induction Hardening (EU8)	30	2.17	6,000	75
TJ3SPB	TJ3 Spray Paint Booth (EU8)	30	2	3,600	75
TJ3CO	TJ3 Convection Oven (EU8)	30	0.833	270	338
TJ4IH	TJ4 Induction Hardening (EU9)	30	2.17	6,000	75
TJ4SPB	TJ4 Spray Paint Booth (EU9)	30	2	3,600	75
TJ4CO	TJ4 Convection Oven (EU9)	30	0.833	270	338
TJ6IH	TJ6 Induction Hardening (EU10)	30	2.17	6,000	75
TJ6SPB	TJ6 Spray Paint Booth (EU10)	30	2	3,600	75
TJ6CO	TJ6 Convection Oven (EU10)	30	0.833	270	338
HT21IH	HT21 Induction Hardening (EU11)	30	2.17	6,000	75
HT21SPB	HT21 Spray Paint Booth (EU11)	30	2	3,600	75
HT21CO	HT21 Convection Oven (EU11)	30	0.833	270	338
HT22IH	HT22 Induction Hardening (EU12)	30	2.17	6,000	75
HT22SPB	HT22 Spray Paint Booth (EU12)	30	2	3,600	75
HT22CO	HT22 Convection Oven (EU12)	30	0.833	270	338
HT23IH	HT23 Induction Hardening (EU13)	30	2.17	6,000	75
HT23SPB	HT23 Spray Paint Booth (EU13)	30	2	3,600	75
HT23CO	HT23 Convection Oven (EU13)	30	0.833	270	338
HT24IH	HT24 Induction Hardening (EU14)	30	2.17	6,000	75
HT24SPB	HT24 Spray Paint Booth (EU14)	30	2	3,600	75
HT24CO	HT24 Convection Oven (EU14)	30	0.833	270	338
HT25IH	HT25 Induction Hardening (EU15)	30	2.17	6,000	75
HT25SPB	HT25 Spray Paint Booth (EU15)	30	2	3,600	75
HT25CO	HT25 Convection Oven (EU15)	30	0.833	270	338
S2	Shaft Line - Parkerizing (EU23)	30	2.17	3,090	85
S4	Shaft Line Spray Paint Booth (EU16)	30	2	3,776	338
S5	Shaft Line Convection Oven	30	1	270	428
Bonderizing	Chemical Bath Treatment (EU22)	30	3	24,485	95
B1	Bonderizing Boiler (B1)	30	1	372	428
B2	Parkerizing Boiler (B2)	30	1.08	372	428
B3	Water Heating Boiler (B3)	30	0.75	Unknown	250
B4	Water Heating Boiler (B4)	30	0.75	Unknown	250
B5	Water Heating Boiler (B5)	30	0.75	Unknown	250
B6-B11	Water Heating Boiler (B6-B11)	30	0.75	Unknown	250
My 1	My Blast 1 (EU24)	30	Unknown	Unknown	Unknown
My 2	My Blast 2 (EU25)	30	Unknown	Unknown	Unknown

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 27, 2001, with additional information received on March 4, 2002 and May 31, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 13).

Potential To Emit of Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	79.15*
PM-10	81.00*
SO ₂	0.2
VOC	54.14
CO	27.34
NO _x	32.55

*PM and PM-10 emissions are after the integral fabric filters on Hub Shot Blaster, My Shot Blaster 1, and My Shot Blaster 2.

HAP's	Unrestricted Potential Emissions (tons/yr)
Ethylene Glycol	6.96
Benzene	Negligible
Dichlorobenzene	Negligible
Formaldehyde	0.02
Hexane	0.59
Toluene	Negligible
Lead	Negligible
Cadmium	Negligible
Chromium	0.05*
Manganese	3.06*
Nickel	0.16*
Phosphorous	Negligible
TOTAL	10.83

*PM and PM-10, Chromium, manganese, and nickel emissions are after the integral fabric filters on Hub Shot Blaster, My Shot Blaster 1, and My Shot Blaster 2.
Note: Negligible indicates emissions less than 0.01 tons per year.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10, VOC, CO, and NO_x are greater than 25 tons per year, therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and

volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone.
- (b) Bartholomew County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	28.04
PM10	29.88
SO ₂	0.2
VOC	54.14
CO	27.34
NO _x	32.55

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the information contained in the application submitted by NTN Driveshaft on March 4, 2002.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. The degreasers are not subject to the requirements of 40 CFR Part 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning) because they use solvents that do not contain specified halogenated HAPs greater than 5% by weight.
- (c) This source is not subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring. In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classified as a major source. For this source, no unit has the potential to emit greater than one hundred percent (100%) of the amount required for a source to be classified as a major source. Additionally, this source is not subject to the requirements of 326 IAC 2-7 (Part 70 Permit Program).
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is not a major source of HAPs (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs).

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is a new minor source. It is not one of the twenty-eight (28) source categories and does not have the potential to emit greater two hundred fifty (250) tons per year of any criteria pollutant. Therefore, it is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

This source has the potential to emit less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of any combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Bartholomew County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 8-6 (Organic Solvent Emission Limitations)

326 IAC 8-6 (Organic Solvent Emission Limitations) does not apply to this source because this source was constructed after 1980.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) does not apply to this source because this source is located in Bartholomew County and does not have the potential to emit greater than one hundred (100) tons per year of VOC.

State Rule Applicability - CVJ Forging Press #1 (EU1), CVJ Forging Press #2 (EU2), Hub Forging Press #1 (EU4 (F1)), Hub Shot Blaster (EU4 (F2)), My Shot Blaster 1 (EU24), My Shot Blaster 2 (EU25), Parkerizing Line (EU23), Insignificant Bonderizing Line (EU22)

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to CP005-4612-00006, issued September 12, 1996, and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from these facilities shall not exceed the listed pounds per hour emission limitations when operating at the process weight rates listed below:

Facility	Capacity (steel billets/hr)	Conversion (lb/steel billet)	Process Weight Rate (lb/hr)	Process Weight Rate (ton/hr)	Particulate Emission Limit (lb/hr)
CVJ Forging Press #1 (EU1)	810	8.5	6885	3.44	9.38
CVJ Forging Press #2 (EU2)	810	8.5	6885	3.44	9.38
Hub Forging Press #1 (EU4 (F1))	1200	5.25	6300	3.15	8.84
Bonderizing Line (EU22)	---	---	11,340	5.67	13.11
Parkerizing Line (EU23)	514	8.5	4,369	2.18	6.92

These pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

and

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

- (b) Hub Shot Blaster (EU4 (F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25) are not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations)

for Manufacturing Processes) because pursuant to 326 IAC 6-3-2(b)(14), processes with potential emissions less than five hundred fifty-one thousandths (0.551) pounds per hour are exempt from the provisions of 326 IAC 6-3-2. These processes each have potential emissions, after the integral fabric filters, of less than potential emissions less than five. The fabric filters must be in operation at all times that the shot blasters are in operation in order to ensure that the shot blasters are exempt from the requirements of 326 IAC 6-3-2.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

- (a) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to CVJ Forging Press #1 (EU1), CVJ Forging Press #2 (EU2), and the Bonderizing Line (EU22) because the emission units as a group have the potential to emit VOC at levels less than twenty five (25) tons per year. CVJ Forging Press #1 (EU1) and CVJ Forging Press #2 (EU2) operate in parallel. These two units together as a group operate in series with the Bonderizing Line (EU22).
- (b) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the Hub Forging Press #1 (EU4 (F1)) and the Hub Shot Blaster (EU4 (F2)) because the emission units as a group have the potential to emit VOC at levels less than twenty five (25) tons per year. Hub Forging Press #1 (EU4 F1) and Hub Shot Blaster (EU4 (F2)) operate in series.
- (c) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to My Shot Blaster 1 (EU24) or My Shot Blaster 2 (EU25) because these units do not have the potential to emit VOC. These units do not operate in series with any VOC emitting unit.
- (d) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the Parkerizing line (EU23) because this operation has the potential to emit VOC at levels less than twenty five (25) tons per year.

State Rule Applicability - Shaft Line (EU16) and Insignificant Heat Treat Lines BJ1 (EU5), BJ2 (EU6), TJ2 (EU7), TJ3 (EU8), TJ4 (EU9), TJ6 (EU10), HT21 (EU11), HT22 (EU12), HT23 (EU13), HT24 (EU14), HT25 (EU15)

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from the induction hardening operations associated with these heat treat lines shall not exceed the listed pounds per hour emission limitations when operating at the process weight rates listed below:

Stack ID (Facility)	Process Weight Rate (lb/hr)	Process Weight Rate (ton/hr)	Particulate Emission Limit (lb/hr)
BJ1IH (EU5)	280	0.14	1.10
BJ2IH (EU6)	300	0.15	1.15
TJ2IH (EU7)	150	0.08	0.72
TJ3IH (EU8)	150	0.08	0.72
TJ4IH (EU9)	270	0.14	1.07
TJ6IH (EU10)	257	0.13	1.04
HT21IH (EU11)	225	0.11	0.95
HT22IH (EU12)	225	0.11	0.95
HT23IH (EU13)	180	0.09	0.82

Stack ID (Facility)	Process Weight Rate (lb/hr)	Process Weight Rate (ton/hr)	Particulate Emission Limit (lb/hr)
HT24IH (EU14)	225	0.11	0.95
HT25IH (EU15)	257	0.13	1.04

These pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Particulate from the spray booths associated with the Shaft Line (EU16) and heat treat lines BJ1 (EU5), BJ2 (EU6), TJ4 (EU9), TJ6 (EU10), and HT25 (EU15) shall be controlled by dry filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such an observation:

- (1) Repair control device so that no overspray is visible detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visible detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (c) Pursuant to 6-3-1(b)(15) the spray booths associated with heat treat lines TJ2 (EU7), TJ3 (EU8), HT21 (EU11), HT22 (EU12), HT23 (EU13), and HT24 (EU14) are exempt because they use less than five (5) gallons of coating per day.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

- (a) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the shaft line (EU16) and the shaft line convection oven because each operation has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (b) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line BJ1 (EU5) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (c) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line BJ2 (EU6) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (d) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line TJ2 (EU7) because this operation, consisting of induction hardening, a

spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.

- (e) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line TJ3 (EU8) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (f) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line TJ4 (EU9) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (g) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line TJ6 (EU10) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (h) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line HT21 (EU11) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (i) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line HT22 (EU12) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (j) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line HT23 (EU13) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (k) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line HT24 (EU14) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.
- (l) 326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the heat treat line HT25 (EU15) because this operation, consisting of induction hardening, a spray paint booth, and a convection oven, has the potential to emit VOC at levels less than twenty five (25) tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

- (a) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is applicable to the shaft line because it was constructed in 1996 and has actual emissions of greater than fifteen (15) pounds per day. This rule is also applicable to heat treat lines BJ#2 (EU6) and TJ#3 (EU8) even though they both have the potential to emit less than twenty-five (25) tons per year of VOC, because they were constructed in 1996 and at that time had actual emissions greater than fifteen (15) pounds per day. Pursuant to this rule, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator. Additionally, all solvents sprayed from the application equipment during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

- (b) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line BJ#1 (EU5) because it was constructed in 1996 and has potential VOC emissions of 1.9 tons per year and actual emissions of 12.7 pounds per day.
- (c) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line TJ#2 (EU7) because it was constructed in 1996 and has potential VOC emissions of 1.01 tons per year and actual emissions of 6.73 pounds per day.
- (d) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line TJ#4 (EU9) because it was constructed in 1997 and has potential VOC emissions of 1.77 tons per year and actual emissions of 11.8 pounds per day.
- (e) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line TJ#6 (EU10) because it was constructed in 2002 and has potential VOC emissions of 1.77 tons per year and actual emissions of 11.8 pounds per day.
- (f) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line HT21 (EU11) because it was constructed in 1997 and has potential VOC emissions of 1.52 tons per year and actual emissions of 10.1 pounds per day.
- (g) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line HT22 (EU12) because it was constructed in 1997 and has potential VOC emissions of 1.52 tons per year and actual emissions of 10.1 pounds per day.
- (h) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line HT23 (EU13) because it was constructed in 1997 and has potential VOC emissions of 1.26 tons per year and actual emissions of 8.4 pounds per day.
- (i) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line HT24 (EU14) because it was constructed in 1997 and has potential VOC emissions of 1.52 tons per year and actual emissions of 10.1 pounds per day.
- (j) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) is not applicable to heat treat line HT25 (EU15) because it was constructed in 2002 and has potential VOC emissions of 1.77 tons per year and actual emissions of 11.8 pounds per day.

State Rule Applicability - Insignificant Degreasers

326 IAC 8-1-6 (New Facilities - General Reduction Requirements

326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the degreasers because they have the potential to emit VOC at levels less than twenty five (25) tons per year.

326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning facilities constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;

- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1,

1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

State Rule Applicability - Quality Assurance Process

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from the quality assurance (QA) process, not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-21(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

326 IAC 8-1-6 (New Facilities - General Reduction Requirement) is not applicable to the quality assurance (QA) process because this operation does not have the potential to emit VOC.

State Rule Applicability - Boilers

326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating)

Pursuant to CP005-4612-00006, issued September 12, 1996, and CP005-6484-00066, issued January 16, 1997, 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) applies to B1 through B12 because the boilers were constructed after the applicability date of September 21, 1983 for this rule. Pursuant to this rule, the particulate emissions from the following boilers shall be limited as follows:

Boiler	Construction Date	Q (MMBtu/hr)	Pt (lb/MMBtu)	Emission Limitation (lb/MMBtu)
B6	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B7	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B8	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B9	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B10	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B11	1989	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 = 3.6$	0.78	0.6
B2	1994	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 = 8.1$	0.63	0.6
B3	1994	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 = 8.1$	0.63	0.6
B4	1994	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 = 8.1$	0.63	0.6
B1	1996	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 + 4.2 = 12.3$	0.57	0.57

Boiler	Construction Date	Q (MMBtu/hr)	Pt (lb/MMBtu)	Emission Limitation (lb/MMBtu)
B5	2000	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 + 4.2 + 0.48 = 12.78$	0.56	0.56
B12	2002	$0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 2.1 + 1.2 + 1.2 + 4.2 + 0.48 + 0.2 = 12.98$	0.56	0.56

The limitation for each boiler is the lesser of 0.6 lb/MMBtu and the limit calculated using the equation below:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)
Q = total source maximum operating capacity rating (MMBtu/hr)

Testing Requirements

No testing is required for the Hubshot Blaster (EU4(F2)), My Shot Blaster 1 (EU24), and My Shot Blaster 2 (EU25) because they do not have the potential to emit greater than forty percent (40%) of the source's total potential to emit of PM and PM10, the major pollutants.

Testing is not required for any of the other PM or PM10 emitting sources because emissions from these facilities are already significantly below the limitation in 326 IAC 6-3-2, the only rule that applies to the facilities, without a control device or the control device ensures compliance. Testing would not provide additional compliance information.

Testing is not required for any of the VOC emitting sources because the only VOC rules that are applicable to the source is a VOC content standard (326 IAC 8-2-9) and an equipment and work practice standard (326 IAC 8-3-2 and 8-3-5). Testing would not give information about whether the source is in compliance with these rules.

Compliance Requirements

The compliance monitoring requirements applicable to this source are as follows:

The shaft line (EU16) has applicable compliance monitoring conditions as specified below:

- (a) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such an observation:
 - (1) Repair control device so that no overspray is visible detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visible detectable at the exhaust or accumulates on the ground.
- (b) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

These monitoring conditions are necessary because the fabric filters for the shaft line must operate properly to ensure compliance with 326 IAC 6-3 and 326 IAC 2-6.

Conclusion

The operation of this source manufacturing CVJ driveshaft parts and related components shall be subject to the conditions of the attached proposed Minor Source Operating Permit 005-14340-00066.

Appendix A: Emissions Calculations

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Emissions Summary

Company Name: NTN Driveshaft, Inc.
 Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
 Permit Number: 005-14340-00066
 Pit ID: 005-00066
 Reviewer: ERG/KC
 Date: 06/05/2002

Facility	Unit ID	Potential Uncontrolled PM Emissions (ton/yr)	Potential Uncontrolled PM10 Emissions (ton/yr)	Controlled PM Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)	Potential Uncontrolled SO2 Emissions (ton/yr)	Potential Uncontrolled VOC Emissions (ton/yr)	Potential Uncontrolled CO Emissions (ton/yr)	Potential Uncontrolled NOx Emissions (ton/yr)	Potential Uncontrolled Combined HAPs (ton/yr)
Combustion Sources	B1 through B12, UH1-72, RTAH1-58, MAU1-13, A/C1 3, WH	0.62	2.47	0.62	2.47	0.2	1.79	27.34	32.55	0.61
Hub Shot Blaster*	EU4 (F2)	1.13	1.13	1.13	1.13	0	0	0	0	0.09
My Blaster 1*	EU24	0.53	0.53	0.53	0.53	0	0	0	0	0.04
My Blaster 2*	EU25	0.53	0.53	0.53	0.53	0	0	0	0	0.04
CVJ Forging Press #1	EU1	15.68	15.68	1.57	1.57	0	9.74	0	0	0
CVJ Forging Press #2	EU2	15.68	15.68	0.78	0.78	0	9.74	0	0	0
Hub Forging Press	EU4 (F1)	15.62	15.62	1.56	1.56	0	20.12	0	0	0
BJ#1 Induction Hardening	EU5	0.43	0.43	0.0043	0.0043	0	0.0068	0	0	0
BJ#1 Spray Paint Booth	EU5	0.7	0.7	0.7	0.7	0	0.74	0	0	0.6
BJ#2 Induction Hardening	EU6	0.46	0.46	0.0046	0.0046	0	0.0073	0	0	0
BJ#2 Spray Paint Booth	EU6	0.75	0.75	0.75	0.75	0	0.79	0	0	0.64
TJ#2 Induction Hardening	EU7	0.23	0.23	0.0023	0.0023	0	0.0037	0	0	0
TJ#2 Spray Paint Booth	EU7	0.37	0.37	0.37	0.37	0	0.4	0	0	0.32
TJ#3 Induction Hardening	EU8	0.23	0.23	0.0023	0.0023	0	0.0037	0	0	0
TJ#3 Spray Paint Booth	EU8	0.37	0.37	0.37	0.37	0	0.4	0	0	0.32
TJ#4 Induction Hardening	EU9	0.41	0.41	0.0041	0.0041	0	0.0066	0	0	0
TJ#4 Spray Paint Booth	EU9	0.65	0.65	0.65	0.65	0	0.69	0	0	0.56
TJ#6 Induction Hardening	EU10	0.39	0.39	0.0039	0.0039	0	0.0063	0	0	0
TJ#6 Spray Paint Booth	EU10	0.65	0.65	0.65	0.65	0	0.69	0	0	0.56
HT#21 Induction Hardening	EU11	0.34	0.34	0.0034	0.0034	0	0.0055	0	0	0
HT#21 Spray Paint Booth	EU11	0.56	0.56	0.56	0.56	0	0.59	0	0	0.48
HT#22 Induction Hardening	EU12	0.34	0.34	0.0034	0.0034	0	0.0055	0	0	0
HT#22 Spray Paint Booth	EU12	0.56	0.56	0.56	0.56	0	0.59	0	0	0.48
HT#23 Induction Hardening	EU13	0.27	0.27	0.0027	0.0027	0	0.0044	0	0	0
HT#23 Spray Paint Booth	EU13	0.47	0.47	0.47	0.47	0	0.49	0	0	0.4
HT#24 Induction Hardening	EU14	0.34	0.34	0.0034	0.0034	0	0.0055	0	0	0
HT#24 Spray Paint Booth	EU14	0.56	0.56	0.56	0.56	0	0.59	0	0	0.48
HT#25 Induction Hardening	EU15	0.39	0.39	0.0039	0.0039	0	0.0053	0	0	0
HT#25 Spray Paint Booth	EU15	0.65	0.65	0.65	0.65	0	0.69	0	0	0.56
Shaft Line Spray Paint Booth	EU16	4.57	4.57	4.57	4.57	0	4.53	0	0	1.52
Parkerizing Line	EU23	9.7	9.7	9.7	9.7	0	0	0	0	3.1
Bonderizing Line	EU22	4.47	4.47	0.22	0.22	0	0.79	0	0	0
Quality Assurance Process	QA Process	0.5	0.5	0.5	0.5	0	0	0	0	0
Degreasers	Degreaser 1 through Degreaser 11	0	0	0	0	0	0.71	0	0	0
Total		79.15	81.00	28.04	29.89	0.20	54.14	27.34	32.55	10.80

* Emissions are after the integral baghouses.

Appendix A: Emissions Calculations

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Natural Gas Combustion Only**MM BTU/HR <100****Small Industrial Boiler****Company Name: NTN Driveshaft, Inc.****Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201****Permit Number: 005-14340-00066****Plt ID: 005-00066****Reviewer: ERG/KC****Date: 06/05/2002**

Total Capacity = 4.2 + 2.1 + 1.2 + 1.2 + 0.48 + 0.6 + 0.44 + 0.18 + 0.2 + 0.2 + 1.98 + 0.2 +
7.71 + 24.63 + 23.15 + 1.68 + 4.15 = 74.12 MMBtu/hr

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

74.3

651.0

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.62	2.47	0.20	32.55	1.79	27.34

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

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Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: NTN Driveshaft, Inc.

Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201

Permit Number: 005-14340-00066

Plt ID: 005-00066

Reviewer: ERG/KC

Date: 06/05/2002

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.836E-04	3.906E-04	2.441E-02	5.859E-01	1.107E-03

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.628E-04	3.581E-04	4.557E-04	1.237E-04	6.836E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations

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Shotblaster Emissions

Company Name: NTN Driveshaft, Inc.

Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201

Permit Number: 005-14340-00066

Plt ID: 005-00066

Reviewer: ERG/KC

Date: 06/05/2002

PM and PM10 Emissions

Unit		Grain Loading (gr/dscf)	Air Flow (dscf/min)	Control Efficiency (%)	Emissions Prior to Integral Baghouses (ton/yr)	Emissions After Integral Baghouses (ton/yr)
EU4 (F2)	Hub Shot Blaster	0.02	1,500	0.99	112.63	1.13
EU24	My Blaster	0.02	706	0.99	53.01	0.53
EU25	My Blaster	0.02	706	0.99	53.01	0.53

Uncontrolled Emissions (ton/yr) = Grain Loading * Air Flow * 60 min/hr / 7000 gr/lb * 8760 hr/yr / 2000lb/ton / (1-Control Efficiency)

Controlled Emissions (ton/yr) = Uncontrolled Emissions * (1-Control Efficiency)

HAP Emissions

Unit		Manganese Content (%)	Manganese Emissions After Integral Baghouses (ton/yr)	Phosphorous Content (%)	Phosphorous Emissions After Integral Baghouses (ton/yr)	Nickel Content (%)	Nickel Emissions After Integral Baghouses (ton/yr)	Chromium Content (%)	Chromium Emissions After Integral Baghouses (ton/yr)
EU4 (F2)	Hub Shot Blaster	2.00%	0.02	0.04%	0.0004	3.75%	0.04	2.50%	0.03
EU24	My Blaster	2.00%	0.01	0.04%	0.0002	3.75%	0.02	2.50%	0.01
EU25	My Blaster	2.00%	0.01	0.04%	0.0002	3.75%	0.02	2.50%	0.01

Emissions (ton/yr) = Grain Loading * Air Flow * 60 min/hr / 7000 gr/lb * 8760 hr/yr / 2000lb/ton * HAP Content

Appendix A: Emissions Calculations

Forging Press Emissions

Company Name: NTN Driveshaft, Inc.
Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
Permit Number: 005-14340-00066
Plt ID: 005-00066
Reviewer: ERG/KC
Date: 06/05/2002

Potential PM and PM10 Emissions

Emission Unit ID	Emission Unit Description	Unit Capacity (parts/hr)	Gal/Part	Lb/Gal	% Solids	% Dispersion	Potential Particulate Emissions (lb/hr)	Potential Particulate Emissions (ton/yr)	Control Efficiency	Controlled Particulate Emissions (ton/yr)
EU1	CVJ Forging Press #1	810	0.0028	8.84	38%	47%	3.58	15.68	90%	1.57
EU2	CVJ Forging Press #2	810	0.0028	8.84	38%	47%	3.58	15.68	95%	0.78
EU4 (F1)	Hub Forging Press	1200	0.0032	8.59	23%	47%	3.57	15.62	90%	1.56

Uncontrolled Emissions (ton/yr) = Unit Capacity * Gal/Part * Lb/Gal * % Solids * % Dispersion * 8760 hr/yr / 2000 lb/ton

Controlled Emissions (ton/yr) = Uncontrolled Emissions * (1-Control Efficiency)

Potential VOC Emissions

Emission Unit ID	Emission Unit Description	Unit Capacity (units/hr)	Gallons of Coating per Unit	Pounds VOC per Gallon	Percent VOC Released*	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
EU1	CVJ Forging Press #1	810	0.0028	0.98	100%	2.22	9.74
EU2	CVJ Forging Press #2	810	0.0028	0.98	100%	2.22	9.74
EU4 (F1)	Hub Forging Press	1200	0.0032166	1.19	100%	4.59	20.12

Emissions (ton/yr) = Unit Capacity * Gal of Coating per Unit * lb VOC per gal * Percent VOC released * 8760 hr/yr / 2000 lb/ton

Appendix A: Emissions Calculations

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Induction Hardening Emissions

Company Name: NTN Driveshaft, Inc.
 Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
 Permit Number: 005-14340-00066
 Plt ID: 005-00066
 Reviewer: ERG/KC
 Date: 06/05/2002

Total Quenchant Used

50,038 pounds of quenchant used in 2001
 8,947 pounds of quenchange for make-up in 2001
 58,985 total pounds of quenchant used in 2001
 7,240 hours of operation in 2001
 71,368.59 maximum pounds quenchant used if operated 8,760 hours per year

Quenchant Properties

1.095 specific gravity of quenchant
 9.12 lb/gal (density)
 0.45 Water Content of Quenchant
 0.55 Solids Content of Quenchant
 0.08 Quenchant Pounds VOC/gal

Quenchant Disposed Of

5,200 gallons of quenchant disposed of in 2001
 7,240 hours of operation in 2001
 6,291.71 maximum gallons quenchant disposed of if operated 8,760 hours per year
 57,380.42 pounds of quenchant disposed of

Mass Balance Calculations for Heat Treat Lines

71,368.59 pounds of quenchant used
 57,380.42 pounds of quenchant disposed of
 13,988.17 total pounds of quenchant unaccounted for
 6.99 total tons of quenchant unaccounted for

PM/PM10 Emissions

Emission Unit ID	Emission Unit Description	Unit Capacity (parts/hr)	Solids Content of Quenchant (%)	Total Tons of Quenchant Unaccounted For	Uncontrolled PM/PM10 Emissions (ton/yr)	Control Efficiency	Controlled PM/PM10 Emissions (ton/yr)
EU5	BJ#1 Induction Hardening	280	0.55	6.99	0.43	0.99	0.0043
EU6	BJ#2 Induction Hardening	300	0.55	6.99	0.46	0.99	0.0046
EU7	TJ#2 Induction Hardening	150	0.55	6.99	0.23	0.99	0.0023
EU8	TJ#3 Induction Hardening	150	0.55	6.99	0.23	0.99	0.0023
EU9	TJ#4 Induction Hardening	270	0.55	6.99	0.41	0.99	0.0041
EU10	TJ#6 Induction Hardening	257	0.55	6.99	0.39	0.99	0.0039
EU11	HT#21 Induction Hardening	225	0.55	6.99	0.34	0.99	0.0034
EU12	HT#22 Induction Hardening	225	0.55	6.99	0.34	0.99	0.0034
EU13	HT#23 Induction Hardening	180	0.55	6.99	0.27	0.99	0.0027
EU14	HT#24 Induction Hardening	225	0.55	6.99	0.34	0.99	0.0034
EU15	HT#25 Induction Hardening	257	0.55	6.99	0.39	0.99	0.0039
Total		2519			3.85		0.038

Uncontrolled Emissions (ton/yr) = Unit Capacity * Solids Content * Tons Quenchant Unaccounted For / Total Parts

Controlled Emissions (ton/yr) = Uncontrolled Emissions * (1-Control Efficiency)

Appendix A: Emissions Calculations**Induction Hardening Emissions****Company Name:** NTN Driveshaft, Inc.**Address City IN Zip:** 8251 S. International Dr, Columbus, IN 47201**Permit Number:** 005-14340-00066**Plt ID:** 005-00066**Reviewer:** ERG/KC**Date:** 06/05/2002**Potential VOC Emissions**

Emission Unit ID	Emission Unit Description	Unit Capacity (parts/hr)	Pounds VOC/gal	Total Tons of Quenchant Unaccounted For	Density (lb/gal)	Potential VOC Emissions (ton/yr)
EU5	BJ#1 Induction Hardening	280	0.08	6.99	9.12	0.0068
EU6	BJ#2 Induction Hardening	300	0.08	6.99	9.12	0.0073
EU7	TJ#2 Induction Hardening	150	0.08	6.99	9.12	0.0037
EU8	TJ#3 Induction Hardening	150	0.08	6.99	9.12	0.0037
EU9	TJ#4 Induction Hardening	270	0.08	6.99	9.12	0.0066
EU10	TJ#6 Induction Hardening	257	0.08	6.99	9.12	0.0063
EU11	HT#21 Induction Hardening	225	0.08	6.99	9.12	0.0055
EU12	HT#22 Induction Hardening	225	0.08	6.99	9.12	0.0055
EU13	HT#23 Induction Hardening	180	0.08	6.99	9.12	0.0044
EU14	HT#24 Induction Hardening	225	0.08	6.99	9.12	0.0055
EU15	HT#25 Induction Hardening	257	0.08	6.99	9.12	0.0063
Total		2519		76.93		0.061

Emissions = Unit Capacity * Pounds VOC/gal * Total Tons Unaccounted For / Density / Total Parts

Appendix A: Emissions Calculations

Painting Operation Emissions

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Company Name: NTN Driveshaft, Inc.
Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
Permit Number: 005-14340-00066
Plt ID: 005-00066
Reviewer: ERG/KC
Date: 06/05/2002

Emission Unit ID	Emission Unit Description	Paint	Density (lb/gal)	Weight % Solids	Max. Throughput (units/hr)	Max. Usage (gal/unit)	Pounds VOC per Gallon of Coating	Potential VOC (lb/hr)	Potential VOC (ton/yr)	PM/PM10 Potential (lb/hr)	PM/PM10 Potential (ton/yr)	Transfer Efficiency
EU5	BJ#1 Spray Paint Booth	Flat Black	9.08	33.58%	280	0.00054	1.09	0.16	0.72	0.16	0.70	65%
		Black W/R	8.70	29.08%	280	0.00054	1.13	0.17	0.74	0.13	0.58	65%
		Green W/R	8.96	32.33%	280	0.00054	1.12	0.17	0.74	0.15	0.67	65%
EU6	BJ#2 Spray Paint Booth	Flat Black	9.08	33.58%	300	0.00053	1.09	0.17	0.76	0.17	0.75	65%
		Black W/R	8.70	29.08%	300	0.00053	1.13	0.18	0.79	0.14	0.62	65%
		Green W/R	8.96	32.33%	300	0.00053	1.12	0.18	0.78	0.16	0.71	65%
EU7	TJ#2 Spray Paint Booth	Flat Black	9.08	33.58%	150	0.00053	1.09	0.09	0.38	0.09	0.37	65%
		Black W/R	8.70	29.08%	150	0.00053	1.13	0.09	0.40	0.07	0.31	65%
		Green W/R	8.96	32.33%	150	0.00053	1.12	0.09	0.39	0.08	0.36	65%
EU8	TJ#3 Spray Paint Booth	Flat Black	9.08	33.58%	150	0.00053	1.09	0.09	0.38	0.09	0.37	65%
		Black W/R	8.70	29.08%	150	0.00053	1.13	0.09	0.40	0.07	0.31	65%
		Green W/R	8.96	32.33%	150	0.00053	1.12	0.09	0.39	0.08	0.36	65%
EU9	TJ#4 Spray Paint Booth	Flat Black	9.08	33.58%	270	0.00052	1.09	0.15	0.67	0.15	0.65	65%
		Black W/R	8.70	29.08%	270	0.00052	1.13	0.16	0.69	0.12	0.54	65%
		Green W/R	8.96	32.33%	270	0.00052	1.12	0.16	0.69	0.14	0.62	65%
EU10	TJ#6 Spray Paint Booth	Flat Black	9.08	33.58%	257	0.00054	1.09	0.15	0.67	0.15	0.65	65%
		Black W/R	8.70	29.08%	257	0.00054	1.13	0.16	0.69	0.12	0.54	65%
		Green W/R	8.96	32.33%	257	0.00054	1.12	0.16	0.69	0.14	0.62	65%
EU11	HT#21 Spray Paint Booth	Flat Black	9.08	33.58%	225	0.00053	1.09	0.13	0.57	0.13	0.56	65%
		Black W/R	8.70	29.08%	225	0.00053	1.13	0.14	0.59	0.11	0.47	65%
		Green W/R	8.96	32.33%	225	0.00053	1.12	0.13	0.59	0.12	0.53	65%
EU12	HT#22 Spray Paint Booth	Flat Black	9.08	33.58%	225	0.00053	1.09	0.13	0.57	0.13	0.56	65%
		Black W/R	8.70	29.08%	225	0.00053	1.13	0.14	0.59	0.11	0.47	65%
		Green W/R	8.96	32.33%	225	0.00053	1.12	0.13	0.59	0.12	0.53	65%
EU13	HT#23 Spray Paint Booth	Flat Black	9.08	33.58%	180	0.00056	1.09	0.11	0.48	0.11	0.47	65%
		Black W/R	8.70	29.08%	180	0.00056	1.13	0.11	0.49	0.09	0.39	65%
		Green W/R	8.96	32.33%	180	0.00056	1.12	0.11	0.49	0.10	0.44	65%
EU14	HT#24 Spray Paint Booth	Flat Black	9.08	33.58%	225	0.00053	1.09	0.13	0.57	0.13	0.56	65%
		Black W/R	8.70	29.08%	225	0.00053	1.13	0.14	0.59	0.11	0.47	65%
		Green W/R	8.96	32.33%	225	0.00053	1.12	0.13	0.59	0.12	0.53	65%
EU15	HT#25 Spray Paint Booth	Flat Black	9.08	33.58%	257	0.00054	1.09	0.15	0.67	0.15	0.65	65%
		Black W/R	8.70	29.08%	257	0.00054	1.13	0.16	0.69	0.12	0.54	65%
		Green W/R	8.96	32.33%	257	0.00054	1.12	0.16	0.69	0.14	0.62	65%
EU16	Shaft Line Spray Paint Booth	Black Gloss	8.97	38.19%	514	0.00169	1.19	1.04	4.53	1.04	4.57	65%

Total Maximum Potential Emissions

11.22

10.88

Methodology

Potential VOC (lbs/hr) = Pounds VOC per Gallon coating (lb/gal) * Max. Throughput (units/hr) * Max. Usage (gals/unit)

Potential VOC (tons/yr) = Pounds VOC per Gallon coating (lb/gal) * Max. Throughput (units/hr) * Max. Usage (gals/unit) * (8760 hr/yr) * (1 ton/2000 lbs)

Potential PM/PM10 (lbs/hr) = Max. Throughput (units/hr) * Max. Usage (gals/unit) * Density (lbs/gal) * (Weight % Solids) * (1-Transfer efficiency)

Potential PM/PM10 (tons/yr) = Max. Throughput (units/hr) * Max. Usage (gals/unit) * Density (lbs/gal) * (Weight %Solids) * (1-Transfer efficiency) * (8760 hrs/yr) *(1 ton/2000 lbs)

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Appendix A: Emissions Calculations

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Painting Operation Emissions

Company Name: NTN Driveshaft, Inc.
Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
Permit Number: 005-14340-00066
Pit ID: 005-00066
Reviewer: ERG/KC
Date: 06/05/2002

Emission Unit ID	Emission Unit Description	Paint	Density (lb/gal)	Max. Throughput (units/hr)	Max. Usage (gal/unit)	Ethylene Glycol Content (lb/gal)	Ethylene Glycol Emissions (ton/yr)
EU5	BJ#1 Spray Paint Booth	Flat Black	9.08	280	0.00054	0.88	0.58
		Black W/R	8.70	280	0.00054	0.92	0.60
		Green W/R	8.96	280	0.00054	0.91	0.60
EU6	BJ#2 Spray Paint Booth	Flat Black	9.08	300	0.00053	0.88	0.62
		Black W/R	8.70	300	0.00053	0.92	0.64
		Green W/R	8.96	300	0.00053	0.91	0.64
EU7	TJ#2 Spray Paint Booth	Flat Black	9.08	150	0.00053	0.88	0.31
		Black W/R	8.70	150	0.00053	0.92	0.32
		Green W/R	8.96	150	0.00053	0.91	0.32
EU8	TJ#3 Spray Paint Booth	Flat Black	9.08	150	0.00053	0.88	0.31
		Black W/R	8.70	150	0.00053	0.92	0.32
		Green W/R	8.96	150	0.00053	0.91	0.32
EU9	TJ#4 Spray Paint Booth	Flat Black	9.08	270	0.00052	0.88	0.54
		Black W/R	8.70	270	0.00052	0.92	0.56
		Green W/R	8.96	270	0.00052	0.91	0.56
EU10	TJ#6 Spray Paint Booth	Flat Black	9.08	257	0.00054	0.88	0.54
		Black W/R	8.70	257	0.00054	0.92	0.56
		Green W/R	8.96	257	0.00054	0.91	0.56
EU11	HT#21 Spray Paint Booth	Flat Black	9.08	225	0.00053	0.88	0.46
		Black W/R	8.70	225	0.00053	0.92	0.48
		Green W/R	8.96	225	0.00053	0.91	0.48
EU12	HT#22 Spray Paint Booth	Flat Black	9.08	225	0.00053	0.88	0.46
		Black W/R	8.70	225	0.00053	0.92	0.48
		Green W/R	8.96	225	0.00053	0.91	0.48
EU13	HT#23 Spray Paint Booth	Flat Black	9.08	180	0.00056	0.88	0.39
		Black W/R	8.70	180	0.00056	0.92	0.40
		Green W/R	8.96	180	0.00056	0.91	0.40
EU14	HT#24 Spray Paint Booth	Flat Black	9.08	225	0.00053	0.88	0.46
		Black W/R	8.70	225	0.00053	0.92	0.48
		Green W/R	8.96	225	0.00053	0.91	0.48
EU15	HT#25 Spray Paint Booth	Flat Black	9.08	257	0.00054	0.88	0.54
		Black W/R	8.70	257	0.00054	0.92	0.56
		Green W/R	8.96	257	0.00054	0.91	0.56
EU16	Shaft Line Spray Paint Booth	Black Gloss	8.97	514	0.00169	0.40	1.52

Total Maximum Potential Emissions

6.96

Methodology

HAP Emissions (tons/yr) = Max. Throughput (units/hr) * Max. Usage (gals/unit) * HAP Content (lb/gal) * (8760 hr/yr) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations

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Parkerizing Emissions (EU23)**Company Name:** NTN Driveshaft, Inc.**Address City IN Zip:** 8251 S. International Dr, Columbus, IN 47201**Permit Number:** 005-14340-00066**Plt ID:** 005-00066**Reviewer:** ERG/KC**Date:** 06/05/2002**Potential PM/PM10 Emissions**

Chemical	Maximum Capacity (Units/hr)	lbs/unit	Percent Solids (%)	Estimated Evaporation Rate	Potential Particulate Emissions (ton/yr)
Additive 1	514	0.0034	61%	5%	0.23
Parco Cleaner 20553	514	0.027	63%	5%	1.91
Parco Lubrite	514	0.11	61%	5%	7.55

Note: PM Emissions = PM10 Emissions **Total 9.70**

Methodology

Assumption: 5% evaporation rate based on previous NTN Driveshaft air permits

lbs/unit based on 1999 Production Data and Purchase Data provided by the source.

Particulate Emissions (ton/yr) = units/hr * lbs/unit * % solids * evaporation rate * 8760 (hr/yr) / 2000 (lb/ton)

Potential HAP Emissions

Chemical	Maximum Capacity (Units/hr)	lbs/unit	Percent Solids (%)	Estimated Evaporation Rate	Manganese Content (%)	Potential Manganese Emissions (ton/yr)	Nickel Content (%)	Potential Nickel Emissions (ton/yr)
Additive 1	514	0.0034	61%	5%	0%	0.00	0%	0.00
Parco Cleaner 20553	514	0.027	63%	5%	0%	0.00	0%	0.00
Parco Lubrite	514	0.11	61%	5%	40%	3.02	1%	0.08

Methodology

Assumption: 5% evaporation rate based on previous NTN Driveshaft air permits

lbs/unit based on 1999 Production Data and Purchase Data provided by the source.

HAP Emissions (ton/yr) = units/hr * lbs/unit * percent solids * evaporation rate * % HAP * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations

Bonderizing Emissions (EU22)

Company Name: NTN Driveshaft, Inc.

Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201

Permit Number: 005-14340-00066

Plt ID: 005-00066

Reviewer: ERG/KC

Date: 06/05/2002

Potential PM/PM10 and VOC Emissions

Chemical	Maximum Capacity (lb steel/hr)	Pound Mat/Part	Pound steel/Part	% Solution	Estimated Evaporation Rate	Particulate Emissions (lb/hr)	Potential Particulate Emissions (ton/yr)	Particulate Control Efficiency	Controlled Particulate Emissions (ton/yr)
Formcoat 1A	11340	0.0067	8.5	--	5%	0.45	1.96	95%	0.10
Formcoat 1B	11340	0.003042	8.5	--	5%	0.20	0.89	95%	0.04
Freiclean 10M	11340	0.00368899	8.5	--	5%	0.25	1.08	95%	0.05
Sulfuric Acid (10%)	11340	0.01858682	8.5	10%	5%	0.12	0.54	95%	0.03
Total						1.02	4.47		0.22

Note: PM Emissions = PM10 Emissions

Assumption: 5% evaporation rate based on previous NTN Driveshaft air permits

Sulfuric Acid: 10% solution

Methodology

Particulate Emissions (ton/yr) = Maximum capacity * Pound Mat/part / Pound/part * Evaporation rate * 8760 hr/yr / 2000 lb/ton

Potential VOC Emissions

Chemical	Maximum Capacity (lb steel/hr)	Pound Mat/Part	Pound steel/Part	% VOC	Potential VOC Emissions (ton/yr)
Formcoat 1A	11340	0.0067	8.5	1%	0.39
Formcoat 1B	11340	0.003042	8.5	1%	0.18
Freiclean 10M	11340	0.00368899	8.5	1%	0.22

Methodology

lbs/unit based on 1999 Production Data and Purchase Data provided by the source.

VOC Emissions (ton/yr) = lb steel/hr / lb steel/part * lb mat/part * percent VOC * % VOC * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations

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Quality Assurance (QA) Process Emissions

Company Name: NTN Driveshaft, Inc.

Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201

Permit Number: 005-14340-00066

Plt ID: 005-00066

Reviewer: ERG/KC

Date: 06/05/2002

Potential PM/PM10 Emissions

Chemical	Maximum Capacity (gal/hr)	lb/gal	Estimated Evaporation Rate	Potential Particulate Emissions (ton/yr)
Sulfuric Acid	2.3	1	5%	0.50

Note: PM Emissions = PM10 Emissions

Methodology

Assumption: 5% evaporation rate based on previous air permits

lb/gal based on 1999 Production Data and Purchase Data

Particulate Emissions (ton/yr) = gal/hr * lb/gal * Evaporation Rate * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations

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Degreaser Emissions

Company Name: NTN Driveshaft, Inc.
Address City IN Zip: 8251 S. International Dr, Columbus, IN 47201
Permit Number: 005-14340-00066
Plt ID: 005-00066
Reviewer: ERG/KC
Date: 06/05/2002

Data

2,346 Total Solvent Purchased
2,136 Total waste solvent removed
210.00 Total Solvent Used
6.8 pounds VOC/gall

VOC Emissions

Unit ID	Degreaser	Capacity (gal)	Capacity Ratio to Total	Solvent Usage (gal/yr)	VOC Emissions (ton/yr)
EU17	Heat Treat South	9	2.82%	5.92	0.02
EU18	Heat Treat North	9	2.82%	5.92	0.02
EU19	Maintenance	26	8.15%	17.12	0.06
EU20	Turnings North	26	8.15%	17.12	0.06
EU21	Assembly South	26	8.15%	17.12	0.06
EU22	Turnings South	26	8.15%	17.12	0.06
EU23	Shaft Line Maintenance	34	10.66%	22.38	0.08
EU24	Spindle Room	78	24.45%	51.35	0.17
EU25	Forktruck Maintenance	34	10.66%	22.38	0.08
EU26	Plant Maintenance	34	10.66%	22.38	0.08
EU27	Die Shop	17	5.33%	11.19	0.04
Total		319	100.00%	210.00	0.71